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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,783	05/14/2001	Kristen Lynne McKenzie	7341	9667

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THE PROCTER & GAMBLE COMPANY
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EXAMINER

COLE, LAURA C

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/831,783	MCKENZIE ET AL.	
	Examiner	Art Unit	
	Laura C. Cole	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-39 and 41-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-39 and 41-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 33-35 and 39 are rejected under 35 U.S.C. 103(a) as obvious over Sharp, USPN 5,297,512.

Sharp discloses a vibrating and ultrasonic sound emitting grooming device that comprises a housing (Figure 1), a gripping means (Figure 1 (19)), a cleaning head (Figure 1) that is adapted to be removably mounted to the housing (as it is attached by a "friction fit", Column 2 Lines 35-41) and capable of being interchangeable (as it is attached by a "friction fit" so that one is capable of removing one head and reattaching another by any means, Column 2 Lines 35-41; see also MPEP 2144.04 (V) C), a transducer means mounted in the housing for oscillating (Figure 1 (40)), and a power supply means which is mounted in the housing (Figure 1 (46)). The gripping means is at a proximal end while the cleaning head is at a distal end (Figure 1). The cleaning head is in the form of bristles (Figure 1(28)). The transducer means has a frequency of 30 kHz (Column 3 Line 9). The average oscillating frequency is 30 kHz (Column 3 Line 9), which falls into the range of 1000 Hz to 100 kHz. Sharp does not disclose having a cleaning head surface area greater than 6.25 cm², however Figure 1 indicates a finger defining a scale for the size of the device indicating that the area is greater than *about* 6.25 cm².

It would have been obvious to one of ordinary skill in the art to construct a cleaning head for a sonic surface cleaner that is used for a cleaning a pet's coat to have a cleaning head surface area greater than 6.25 cm² because it would be desirable to have a larger cleaning surface area to reduce the time it takes to clean an area, to reduce the human effort in cleaning a large surface, and because it is most efficient for cleaning a large area. Additionally, "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges

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by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

2. Claims 33-35, 39, and 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bock, USPN 5,369,831 (herein '831) in view of Dolinsky, USPN 4,288,883.

'831 discloses a therapeutic ultrasonic toothbrush that comprises a housing (Figure 1), a gripping means (Figure 1 (22)), a cleaning head (Figures 1-3 (32)) that is adapted to be removably mounted to the housing and is capable of being interchangeable (Figure 2; Column 3 Line 6), a transducer means mounted in the housing for oscillating (Figure 1 (28); Column 3 Lines 10-18), and a power supply means which is mounted in the housing (Figure 1 (24)). The gripping means is at a proximal end while the cleaning head is at a distal end (Figures 1-3). The transducer means has an average ultrasonic oscillating frequency of from about 1000 Hz to about 100 kHz, (Column 2 Lines 66-68, wherein "ultrasonic" is defined as "designating or a frequency of mechanical vibrations above the range audible to the human ear, i.e., above 20,000 vibrations per second" according to *The Webster's New World Dictionary of American English, Third College Edition Copyright © 1988 by Simon & Schuster, Inc.* wherein 20,000 vibrations per second converted into Hertz, is 20,000 Hz or 20 kHz). The cleaning head is in the form of bristles (Figures 1-3 (34)). The device is adapted to function while at least partially immersed in an aqueous environment since it is in the form of a toothbrush and is used in the oral cavity (Column 5 Lines 59-64). There is a first and second housings, with the transducer means in the second housing, the

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second housing being more towards the distal end, and the power supply means in its own housing towards the proximal end. '831 does not disclose having a cleaning head surface area greater than *about* 6.25 cm².

Dolinsky discloses a toothbrush head having a surface area greater than *about* 6.25 cm² (Column 1 Lines 63-64; particularly 6.6 cm²) for effectively cleaning teeth and gums (Column 1 Lines 20-24).

It would have been obvious for one of ordinary skill in the art to modify the cleaning head of '831 to have a surface area great than 6.25 cm², as Dolinsky teaches, so that the brush head effectively cleans a greater area of an oral cavity at once, including gums. Also, Applicant has not disclosed that having a cleaning head surface area greater than 6.25 cm² provides an advantage, is used for a particular purpose, or solves a stated problem. Also, MPEP 2144.04 IV A states "In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device." Additionally, "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

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3. Claims 33-35, 39, and 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bock, USPN 5,546,624 (herein '624) in view of Dolinsky, USPN 4,288,883.

'624 discloses a therapeutic ultrasonic toothbrush that comprises a housing (Figure 1), a gripping means (Figure 1 (22)), a cleaning head (Figures 1-3 (32)) that is adapted to be removably mounted to the housing and is capable of being interchangeable (Figure 2; Column 3 Line 6), a transducer means mounted in the housing for oscillating (Figure 1 (28); Column 3 Lines 10-18), and a power supply means which is mounted in the housing (Figure 1 (24)). The frequency is 1.6 MHz (about 100 kHz, see Column 8 Lines 43-46). Further, the transducer means has an average oscillating frequency of from about 1000 Hz to about 100 kHz, since ultrasonic refers to subsonic, sonic, or ultrasonic (Column 3 Lines 51-55; wherein "ultrasonic" is defined as "designating or a frequency of mechanical vibrations above the range audible to the human ear, i.e., above 20,000 vibrations per second" according to *The Webster's New World Dictionary of American English, Third College Edition Copyright © 1988 by Simon & Schuster, Inc.* wherein 20,000 vibrations per second converted into Hertz, is 20,000 Hz or 20 kHz). The gripping means is at a proximal end while the cleaning head is at a distal end (Figures 1-3). The cleaning head is in the form of bristles (Figures 1-3 (34)). The device is adapted to function while at least partially immersed in an aqueous environment since it is in the form of a toothbrush and is used in the oral cavity (Column 5 Lines 59-64). There is a first and second housings, with the transducer means in the second housing, the second housing being more towards the

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distal end, and the power supply means in its own housing towards the proximal end.

'624 does not disclose having a cleaning head surface area greater than *about* 6.25 cm².

Dolinsky discloses a toothbrush head having a surface area greater than *about* 6.25 cm² (Column 1 Lines 63-64; particularly 6.6 cm²) for effectively cleaning teeth and gums (Column 1 Lines 20-24).

It would have been obvious for one of ordinary skill in the art to modify the cleaning head of '624 to have a surface area great than 6.25 cm², as Dolinsky teaches, so that the brush head effectively cleans a greater area of an oral cavity at once, including gums. Also, Applicant has not disclosed that having a cleaning head surface area greater than 6.25 cm² provides an advantage, is used for a particular purpose, or solves a stated problem. Also, MPEP 2144.04 IV A states "In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device." Additionally, "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

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4. Claims 33-37, 39, 42-49, 51, 52, 55, and 56 are rejected under 35 U.S.C. 103(a) as obvious over Hoffman, USPN 5,890,249 in view of Young et al., USPN 5,891,197, and further in view of Bock, USPN 5,369,831.

Hoffman discloses a multi-purpose vibration cleaning device that comprises a housing (Figures 1-5), a gripping means (Figure 1 (12)), a cleaning head (Figures 1-3 (26) or (24)) that is adapted to be removably mounted to the housing and is capable of being interchangeable (Column 2 Lines 56-57), a transducer means mounted in the housing for oscillating (Column 2 Lines 9-11 disclose that the power supply is connected to the vibration generator, and through that the type of energy must be converted or "transduced" from the battery to the output vibrations), and a power supply means which is mounted in the housing (Figure 1 (17)). The gripping means is at a proximal end while the cleaning head is at a distal end (Figure 1). The device further comprises a solution storage means for containing a cleaning composition and a dispensing means (Column 2 Lines 56-63.) The cleaning composition is lye (Column 2 Line 59) wherein lye ("lye" is defined as "any strongly alkaline substance, usually sodium or potassium hydroxide, used in cleaning, making soap, etc." according to *The Webster's New World Dictionary of American English, Third College Edition Copyright © 1988 by Simon & Schuster, Inc.*) is an antibacterial agent, a surfactant, "perfume", anti-microbial agent, etc. The cleaning head may take the form of a brush, cloth, or towel (Column 2 Lines 45-55, Column 3 Lines 10-19) and can be at least partially immersed in an aqueous environment (Column 2 Lines 12-13). The "second" housing is the housing mentioned above wherein the "first" housing is the housing for the removable

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cleaning head. Hoffman does not disclose having a cleaning head surface area greater than *about* 6.25 cm² or that the vibration is has an average oscillating frequency from about 1000 Hz to 100 kHz.

Young et al. disclose a cleaning device having a surface area greater than *about* 6.25 cm² for removing stains from surfaces (Column 30 Lines 39-43).

'831 discloses all elements above including the teaching of using a transducer to emit ultrasonic waves in order to clean debris from a tooth surface (Column 2 Lines 10-36; (Column 2 Lines 66-68, wherein "ultrasonic" is defined as "designating or a frequency of mechanical vibrations above the range audible to the human ear, i.e., above 20,000 vibrations per second" according to *The Webster's New World Dictionary of American English, Third College Edition Copyright © 1988 by Simon & Schuster, Inc.* wherein 20,000 vibrations per second converted into Hertz, is 20,000 Hz or 20 kHz).

It would have been obvious for one of ordinary skill in the art to modify the surface area of the cleaning head of Hoffman to be greater than about 6.25 cm² , as Young et al. teach, to be able to sufficiently clean soiled areas of a surface and it would have been obvious for one of ordinary skill in the art to have the vibration generator to create an ultrasonic oscillating frequency of 20 kHz as '831 teaches, in order to have enough cleaning energy to remove debris from a surface.

5. Claims 33-35, 36, 38-39, 41-51, and 55 are rejected under 35 U.S.C. 103(a) as obvious over Sawyer, USPN 3,357,033 in view of Bock ('831), USPN 5,369,831.

Sawyer discloses a sonic surface cleaner that comprises a housing (Figures 1-3), a gripping means (Figure 1 (12)), a cleaning head (Figures 1-3 (30)) that is adapted to

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be removably mounted to the housing (Column 2 Lines 52-57 and Column 3 Lines 33-41) wherein the cleaning head is interchangeable (Column 2 Lines 52-57 and Column 3 Lines 33-41), a transducer means mounted in the housing for oscillating (Column 4 Lines 17-22 disclose that the energy generated is "transformed" into sound waves and releases that energy at the surface as sonic Column 4 Lines 22-36) that is of a frequency in the *lower sonic range* and has a cleaning effect "analogous to the implosion effect produced by ultrasonic wave energy" (Column 4 Lines 69-72), and a power supply means (from wires (55) and (56) that lead to a cap (60), Column 3 Lines 10-18, and by Figure 1 appear to connect to a cord that would go to an outlet.) The gripping means is at a proximal end while the cleaning head is at a distal end (Figure 1). The device further comprises at least one solution storage means (Figure 1 (72) that contains a cleaning composition for cleaning, and a dispensing means (Figure 1 (71)) mounted in the housing for supplying the cleaning composition (Column 3 Lines 22-32). The cleaning head may be a sponge (Figure 3) so that the cleaning liquid is supplied to a surface that is coterminous (Figure 2) with the head in that the absorbent sponge portions disperse the liquid. The "second" housing is the housing labeled (11) in Figures 1-3 wherein the "first" housing is the liquid supply (Figure 1 (72)). Sawyer also discloses a method for removing soil from a hard surface that contacts the soil with a liquid and cleaning head and imparting ultrasonic energy to it (Column 4 Line 73 to Column 5 Line 18 states that a cleaning composition or detergent is put into contact with a soil, then loosening the soil, and then rinsing the amount with water.) Sawyer does not disclose having a cleaning head surface area greater than *about* 6.25 cm² (although

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it appears in Figure 1 that the surface head is of at least a certain size to efficiently clean a floor surface) or having a power output of at least 0.02 watts/cm^3 . Sawyer does not disclose that the cleaning head oscillates at a frequency from about 1000 Hz to about 100 kHz.

'831 discloses all elements above including the teaching of using a transducer to emit ultrasonic waves in order to clean debris from a tooth surface (Column 2 Lines 10-36; (Column 2 Lines 66-68, wherein "ultrasonic" is defined as "designating or a frequency of mechanical vibrations above the range audible to the human ear, i.e., above 20,000 vibrations per second" according to *The Webster's New World Dictionary of American English, Third College Edition Copyright © 1988 by Simon & Schuster, Inc.* wherein 20,000 vibrations per second converted into Hertz, is 20,000 Hz or 20 kHz).

It would have been obvious for one of ordinary skill in the art to have the transducer of Sawyer modified to create an ultrasonic oscillating frequency of 20 kHz, as '831 teaches, in order to have enough cleaning energy to remove debris from a surface and it would have been obvious to one of ordinary skill in the art to construct a cleaning head for a sonic surface cleaner that is used for a floor to have a cleaning head surface area greater than 6.25 cm^2 or having a power output of at least 0.02 watts/cm^3 because it would be desirable to have a larger cleaning surface area to reduce the time it takes to clean an area, to reduce the human effort in cleaning a large surface, and because it is most efficient for cleaning a large area. Additionally, "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220

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F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Furthermore, MPEP 2144.04 IV A states "In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device."

6. Claims 53, 54, 57, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawyer, USPN 3,357,033 in view of Bock ('831), USPN 5,369,831.

Sawyer and '831 disclose all elements regarding the device as stated above however do not disclose instructions for using the product.

It would have been obvious for one of ordinary skill in the art to provide operating instructions, as it is well known in marketing and business to provide instructions for use of a product to protect the buyer and user.

Applicants Arguments

7. In the response filed 16 April 2005, the Applicant contends that:

A. There is no suggestion in Sharp either expressly or implied that the cleaning head of Sharp is interchangeable.

B. It is not clear that a finger touching the housing of the apparatus (of Sharp) equates to a cleaning head greater than about 6.25cm².

C. The cleaning tool taught by Sawyer does not utilize ultrasonic energy.

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D. There is no teaching or suggestion in Sawyer to utilize a cleaning head surface greater than 6.25cm^2 or to have a power output of at least 0.02 watts/cm^3 . It is impermissible for the Examiner to use Applicants claimed invention to reconstruct prior art in hindsight.

E. The Examiner is reading Applicants' claimed range into Bock '831 and in fact Bock '831 does not teach or suggest any oscillating frequency ranges. Examiner relies on an undated web site and cites The American Heritage Dictionary of the English Language, Fourth Edition Copyright 2000 by Houghton Mifflin Company that is after the priority date of the instant application. Applicants request further clarification.

F. Neither Bock '831 nor Bock '624 teach or suggest expressly or inherently a cleaning head which rests on a surface greater than about 6.25cm^2 .

G. Bock '624 teaches a useful frequency of 1.6MHz ($1,600\text{ kHz}$) that is not from about 1000 Hz to about 100 kHz .

H. The cleaning composition of Hoffman is lye, however there is no teaching in Hoffman wherein lye is "a process aid, antibacterial agent, etc.") It is impermissible for the Examiner to use Applicants claimed invention to reconstruct prior art in hindsight.

I. Sawyer does not disclose instructions for using the product, the claimed frequency range, or a surface head greater than about 6.25cm^2 .

Response to Arguments

8. Applicant's arguments A-I with respect to claims 33-39 and 41-58 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's arguments that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Particularly, in response to argument **E**, the Examiner has provided a different definition for "ultrasonic" from a different source that is before Applicant's priority date. Also, with regards to argument **H**, the Examiner has also provided a definition to further clarify what the substance "lye" is defined to be. "Lye" is capable of being used as a process aid, antibacterial agent, etc.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Cole whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on (571) 272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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